

**ABSTRACT**

An electric motor has at least one component that is submerged in a cooling fluid held in a fluid-filled cavity. The stator, rotor, and rotor shaft bearings are all possible components that may be submerged. The cooling fluid floods the stator, rotor, and/or bearings to cool the components. The fluid may have a high electrical resistance to isolate the motor components from any contact with flammable gasses as well as prevent arcs or sparks. The cavity holding the fluid also ensures continuous lubrication by preventing fluid from leaking or evaporating out of the motor.

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